

art C1
E3 cond a heater/thermometer pattern disposed on said microthin film membrane.

C2
art
E3 134. (Amended) The apparatus of claim 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123 or 124, wherein said microthin film membrane forming said at least one sensor is a silicon nitride membrane, and wherein said substrate supporting said silicon nitride membranes in said sensor array is a silicon wafer.

art
E3 135. (Amended) The apparatus of claim 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123 or 124, wherein said substrate is made of a polymer sheet, and wherein said sensor array includes a plurality of heaters/thermometers disposed on said polymer sheet.

art
C3 E3 138. (Amended) The apparatus of claim 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123 or 124, wherein said substrate is made of a poor thermal conducting material that is at least 100 microns thick, and wherein said sensor array includes a plurality of heaters/thermometers disposed on said poor thermal conducting material.

C4
art
E3 140. (Amended) The apparatus of claim 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123 or 124, wherein said substrate is made of a polymer sheet.

art
E3 141. (Amended) The apparatus of claim 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123 or 124, wherein said substrate is made from a material having poor thermal conductivity and is placed on a heater block, and wherein said sensor array includes a plurality of temperature sensors disposed on the substrate such that a temperature difference between a first portion and a second portion of the substrate can be determined.

art
C5 E3 143. (Amended) The apparatus of claim 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123 or 124, wherein the at least one thermal property characterized by said sensor array is a complex dielectric constant.
